

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application.

**Listing of Claims:**

1. (currently amended) An inventory control system, comprising:  
a server machine having a central processing unit (CPU) and a storage apparatus;  
the storage apparatus storing an inventory control program;  
the inventory control program being executable by the CPU;  
the inventory control program comprising:  
demand predicting means for calculating a predicted value of a demand based on past actual demand information;  
actual value retrieval means for retrieving an actual value of demand which is compared with the predicted demand value;  
predicted remainder calculating means for calculating a predicted remainder which is a difference between the predicted demand value and the actual demand value;  
parameter calculating means for calculating a parameter ~~such as~~ of standard deviation by employing the predicted remainder;  
safety stock calculating means for calculating a safety stock based upon said parameter; and

input means for accepting setting or updating of a setting value such as a planning cycle and at least one of a procurement lead time and a plan lead time, and

wherein the ~~data storage apparatus~~ means for ~~storing~~ stores therein, in time sequence, respective setting values and the past actual demand information at every unit time period from a past time to a present time,

wherein upon receipt of updating of a setting value, via the input means, ~~such as~~ the setting value including said planning cycle and at least one of said procurement lead time and said plan lead time, the demand predicting means calculates a planned demand value of a second past time period based on an actual demand value of a first past time period stored in the data storage means,

wherein the actual value retrieval means retrieves and ~~totalizes~~ sums actual demand values corresponding to the second past time period stored in the data storage means,

wherein the predicted remainder calculating means calculates a predicted remainder which is a difference between the planned demand value of the second past time period and the actual demand value of the second past time period~~[[:]~~,

wherein a process is performed in which the demand predicting means calculates a planned demand value of a fourth past time period, which is different from the second past time period, based on an actual demand value of a third past time period stored in the data storage means, which is different from the first past time period, the actual value retrieval means retrieves and ~~totalizes~~ sums actual

demand values corresponding to the fourth past time period, and the predicted remainder calculating means calculates a predicted remainder from the planned demand value of the fourth past time period and the actual demand value of the fourth past time period to obtain a new sample of the predicted remainder,

wherein the process of calculating a predicted remainder is repeatedly performed for different past time periods until a ~~necessary~~ number of samples of predicted remainders satisfying a criterion has been obtained,

wherein the parameter calculating means calculates ~~[[a]]~~ the parameter of standard deviation based on a plurality of the samples of the predicted remainders obtained by the repeated process of calculating a predicted remainder calculation, and

wherein the safety stock calculating means newly calculates a safety stock based upon the parameter ~~including~~ of standard deviation and the updated setting value, each time the setting value is updated, to thereby update a current safety stock.

2-19. (canceled).

20. (previously presented) An inventory control system according to claim 1, wherein each of the stored second and fourth past time periods is a time

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period substantially same as a planned range which is a sum of the planning cycle,  
the procurement lead time and the plan lead time.